

# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 193403**

**TO: Michael Meller**  
**Location: 3c03 / 3c18**  
**Art Unit: 1655**  
**Wednesday, June 21, 2006**

**Case Serial Number: 10/695930**

**From: Noble Jarrell**  
**Location: Biotech-Chem Library**  
**Rem 1B71**  
**Phone: 272-2556**

**Noble.jarrell@uspto.gov**

### **Search Notes**

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Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: Mike Meller Examiner #: 69404 Date: 6/29/06  
Art Unit: 1655 Phone Number: 272-0967 Serial Number: 10/699,930  
Location (Bldg/Room#): Pen 3003 Mailbox #: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK  
\*\*\*\*\*

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Process for the preparation of aminoalcohol...

Inventors (please provide full names): Walter Brieden, Josef Schvöer, Christine Bernegger-Egli, Eva Urban, Michael Petersen, Jean-Paul Rahnert.

Earliest Priority Date: 11/27/1997

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

please search claims  
8 & 9 on all pertinent  
Data base.

please give to Paul Schwartz  
or Noble ~~Jarrell~~ Jarrell only.

C. Chan  
Rush

STAFF USE ONLY

Searcher: Noble

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: 6/21/06

Date Completed: 6/21/06

Searcher Prep & Review Time: 10

Online Time: 38

Type of Search

\_\_\_\_ NA Sequence (#)

\_\_\_\_ AA Sequence (#)

P Structure (#)

✓ Bibliographic

\_\_\_\_ Litigation

\_\_\_\_ Fulltext

\_\_\_\_ Other

Vendors and cost where applicable

✓ STN \_\_\_\_\_ Dialog

\_\_\_\_ Questel/Orbit \_\_\_\_\_ Lexis/Nexis

\_\_\_\_ Westlaw \_\_\_\_\_ WWW/Internet

\_\_\_\_ In-house sequence systems

\_\_\_\_ Commercial \_\_\_\_\_ Oligomer \_\_\_\_\_ Score/Length

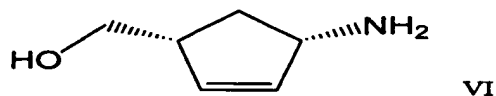
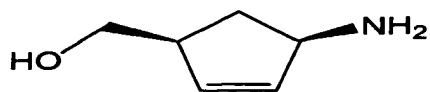
\_\_\_\_ Interference \_\_\_\_\_ SPDI \_\_\_\_\_ Encode/Transl

\_\_\_\_ Other (specify)

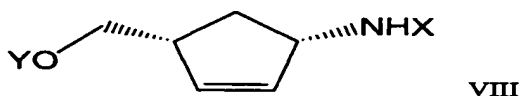
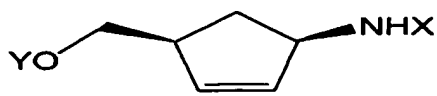
**AMENDMENTS TO THE CLAIMS**

The following listing of claims replaces all prior versions, and listings, of claims in this application.

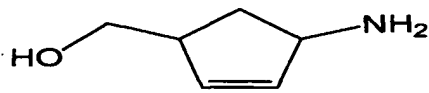
Claim 8 (Currently Amended): Process for the preparation of (1S,4R)- or (1R,4S)-1-amino-4-(hydroxymethyl)-2-cyclopentene of the formulae



or salts thereof and/or of (1S,4R)- or (1R,4S)-1-amino-4-(hydroxymethyl)-2-cyclopentene derivatives of the general formulae



or salts thereof, in which X and Y are identical or different and are an acyl group or H, with the exception of X = Y = H, comprising the racemate resolution of racemic aminoalcohol of the formula



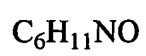
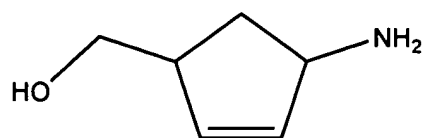
~~either by chemical means using an optically active tartaric acid or biotechnological means using a hydrolase in the presence of an acylating agent.~~

Claim 9 (Currently Amended): Process according to Patent Claim 8, characterized in that ~~the biotechnological racemate resolution is carried out using a lipase, and~~ the chemical racemate resolution is carried out using D-(-)- or L-(+)-tartaric acid.

Claims 10-13 (Canceled)

Claim 14 (Original): (1R,4S)-1-Amino-4-(hydroxymethyl)-2-cyclopentene D- or L-hydrogentartrate.

Claim 15 (Original): (1S,4R)-1-Amino-4-(hydroxymethyl)-2-cyclopentene L- or D-hydrogentartrate.



=> b reg

FILE 'REGISTRY' ENTERED AT 10:44:30 ON 21 JUN 2006  
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STRUCTURE FILE UPDATES: 20 JUN 2006 HIGHEST RN 888507-19-5  
 DICTIONARY FILE UPDATES: 20 JUN 2006 HIGHEST RN 888507-19-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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 \*  
 \* The CA roles and document type information have been removed from \*  
 \* the IDE default display format and the ED field has been added, \*  
 \* effective March 20, 2005. A new display format, IDERL, is now \*  
 \* available and contains the CA role and document type information. \*  
 \*  
 \*\*\*\*\*

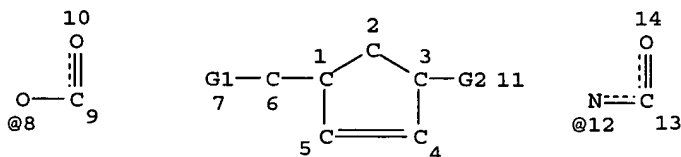
Structure search iteration limits have been increased. See HELP SLIMITS  
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REGISTRY includes numerically searchable data for experimental and  
 predicted properties as well as tags indicating availability of  
 experimental property data in the original document. For information  
 on property searching in REGISTRY, refer to:

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=> d que sta l17

L15 STR



VAR G1=OH/8

VAR G2=NH2/12

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 9

CONNECT IS M1 RC AT 13

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L17 62 SEA FILE=REGISTRY CSS FUL L15

100.0% PROCESSED 1437 ITERATIONS

62 ANSWERS

SEARCH TIME: 00.00.01

=> b hcap

FILE 'HCAPLUS' ENTERED AT 10:44:35 ON 21 JUN 2006  
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FILE COVERS 1907 - 21 Jun 2006 VOL 144 ISS 26  
FILE LAST UPDATED: 20 Jun 2006 (20060620/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs fhitrn hitrn l38 tot

L38 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:349089 HCAPLUS

DN 141:49448

TI A new amidohydrolase from *Bordetella* or *Alcaligenes* strain FB188 with similarities to histone deacetylases

AU Hildmann, Christian; Ninkovic, Milena; Dietrich, Ruediger; Wegener, Dennis; Riester, Daniel; Zimmermann, Thomas; Birch, Olwen M.; Bernegger, Christine; Loidl, Peter; Schwienhorst, Andreas

CS Abteilung fuer Molekulare Genetik und Praeparative Molekularbiologie, Institut fuer Mikrobiologie und Genetik, Goettingen, D-37077, Germany

SO Journal of Bacteriology (2004), 186(8), 2328-2339

CODEN: JOBAAAY; ISSN: 0021-9193

PB American Society for Microbiology

DT Journal

LA English

AB The full-length gene encoding the histone deacetylase (HDAC)-like amidohydrolase (HDAH) from *Bordetella* or *Alcaligenes* (*Bordetella/Alcaligenes*) strain FB188 (DSM 11172) was cloned using degenerate primer PCR combined with inverse-PCR techniques and ultimately expressed in *Escherichia coli*. The expressed enzyme was biochem. characterized and found to be similar to the native enzyme for all properties examined. Nucleotide sequence anal. revealed an open reading frame of 1110 bp which encodes a polypeptide with a theor. mol. mass of 39 kDa. Interestingly, peptide sequencing disclosed that the N-terminal methionine is lacking in the mature wild-type enzyme, presumably due to the action of methionyl aminopeptidase. Sequence database searches suggest that the new amidohydrolase belongs to the HDAC superfamily, with the closest homologs being found in the subfamily assigned acetylpolymine amidohydrolases (APAH). The APAH subfamily comprises enzymes or putative enzymes from such diverse microorganisms as *Pseudomonas aeruginosa*, *Archaeoglobus fulgidus*, and the actinomycete *Mycoplana ramosa* (formerly *M. bullata*). The FB188 HDAH, however, is only moderately active in catalyzing the deacetylation of acetylpolymines. In fact, FB188 HDAH exhibits significant activity in standard HDAC assays and is inhibited by known HDAC inhibitors such as trichostatin A and suberoylanilide hydroxamic acid (SAHA). Several lines of evidence indicate that the FB188 HDAH is very similar to class 1 and 2 HDACs and contains a Zn<sup>2+</sup> ion in the

active site which contributes significantly to catalytic activity. The stereoselectivity, low substrate specificity, and a broad optimum pH range may be useful in biotechnol. applications.

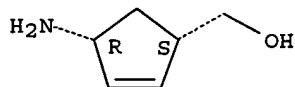
IT 136522-35-5

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(product; cloning and characterization of histone deacetylase-like  
amidohydrolase (hdah1) from Bordetella/Alcaligenes strain FB188)

RN 136522-35-5 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 136522-35-5

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(product; cloning and characterization of histone deacetylase-like  
amidohydrolase (hdah1) from Bordetella/Alcaligenes strain FB188)

IT 130931-86-1

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(substrate, kinetics; cloning and characterization of histone  
deacetylase-like amidohydrolase (hdah1) from Bordetella/Alcaligenes  
strain FB188)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:457234 HCAPLUS

DN 133:72985

TI Method for producing optically active 1-amino-4-(hydroxymethyl)-cyclopent-  
2-ene derivatives

IN Brieden, Walter; Etter, Kay-sara; Petersen, Michael

PA Lonza A.-G., Switz.

SO PCT Int. Appl., 13 pp.

CODEN: PIXXD2

DT Patent

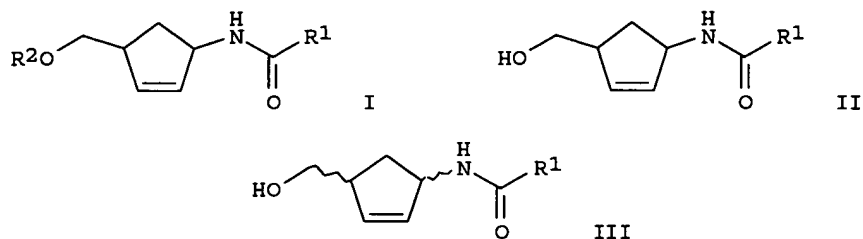
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2000039324	A2	20000706	1999WO-EP10382	19991223
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA---2354382	AA	20000706	1999CA-2354382	19991223
	EP---1141374	A2	20011010	1999EP-0965556	19991223
	EP---1141374	B1	20031029		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, EE, RO				
	JP2003520018	T2	20030702	2000JP-0591213	19991223
	AT---253125	E	20031115	1999AT-0965556	19991223
	PT---1141374	T	20040331	1999PT-0965556	19991223
	ES---2211216	T3	20040701	1999ES-0965556	19991223
	NO2001003037	A	20010619	2001NO-0003037	20010619
	US2002042108	A1	20020411	2001US-0888068	20010622



	US---6524844	B2	20030225
PRAI	1998EP-0124570	A	19981223
	1999US-145999P	P	19990729
	1999US-145959P	P	19990729
	1999WO-EP10382	W	19991223
OS	MARPAT 133:72985		
GI			



AB The invention provides a new method for producing enantiomer-enriched 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivs. of the general formulas (I) and (II) in which R1 is hydrogen or a substituted C1-8 alkyl residue, aryl residue or cycloalkyl residue and R2 is a substituted acyl. A racemic 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivative of general formula (III), where R1 is as above, is converted to I and II using a hydrolase and in the presence of an acylation agent. Thus, cis-N-Acetyl-1-amino-4-(hydroxymethyl)-cyclopent-2-ene dissolved in 2-methyl-2-butanol in the presence of Lipase M and vinyl butyrate was converted to a mixture of (1S, 4R)-N-Acetyl-1-amino-4-(hydroxymethyl)-cyclopent-2-ene and (1R, 4S)-N-Acetyl-1-amino-4-(propylcarbonyloxymethyl)-cyclopent-2-ene with a selectivity of over 98.5%. The mixture was then separated via silica gel chromatog. to yield enantiomerically pure or enriched fractions. The reaction could catalyzed with other lipases or subtilisin in dioxane or tributyrin solvent systems.

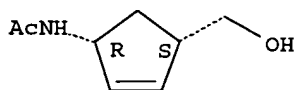
IT 130931-86-1P

RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)  
(method for producing optically active 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivs.)

RN 130931-86-1 HCAPLUS

CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.



IT 130931-86-1P 280115-03-9P

RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation) (method for producing optically active 1-amino-4-(hydroxymethyl)-cyclopent-2-ene derivs.)

IT 65942-42-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(method for producing optically active 1-amino-4-(hydroxymethyl)-  
cyclopent-2-ene derivs.)

L38 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:314678 HCAPLUS

DN 132:308602

TI Preparation of 4-[(2,5-diamino-6-halopyrimidin-4-yl)amino]cyclopent-2-enylmethanols from 2,5-diamino-4,6-dihalopyrimidines and 4-aminocyclopent-2-enylmethanol.

IN Brieden, Walter; Saikali, Elie

PA Lonza A.-G., Switz.

SO PCT Int. Appl., 21 pp.

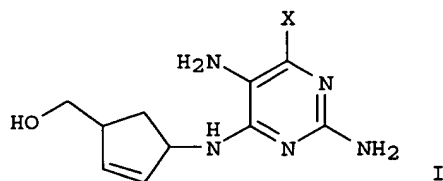
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2000026193	A1	20000511	1999WO-EP08270	19991029
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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	EP---1124805	A1	20010822	1999EP-0971416	19991029
	EP---1124805	B1	20030521		
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	JP2003500333	T2	20030107	2000JP-0579582	19991029
	AT---240945	E	20030615	1999AT-0971416	19991029
	CN---1115338	B	20030723	1999CN-0812845	19991029
	ES---2200594	T3	20040301	1999ES-0971416	19991029
	NO2001002028	A	20010425	2001NO-0002028	20010425
	NO---318051	B1	20050124		
	US---6433170	B1	20020813	2001US-0807976	20010617
	HK---1042474	A1	20031121	2002HK-0101383	20020222
PRAI	1998EP-0120529	A	19981030		
	1999US-146105P	P	19990729		
	1999WO-EP08270	W	19991029		
OS	CASREACT 132:308602				
GI					



AB Title compds. (I; X = halo) were prepared by reaction of 2,5-diamino-4,6-dihalopyrimidines with 4-aminocyclopent-2-enylmethanol in the presence of base and in a polar protic solvent. Thus, (1S,4R)-4-aminocyclopent-2-enylmethanol hydrochloride, 2,5-diamino-4,6-dichloropyrimidine, and NaHCO<sub>3</sub> were refluxed 16 h in EtOH to give 60% I (X = Cl).

IT 168960-19-8

RL: RCT (Reactant); RACT (Reactant or reagent)

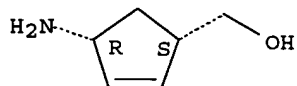
(preparation of 4-[(2,5-diamino-6-halopyrimidin-4-yl)amino]cyclopent-2-enylmethanols from 2,5-diamino-4,6-dihalopyrimidines and 4-aminocyclopent-2-enylmethanol)

RN 168960-19-8 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, hydrochloride, (1S,4R)- (9CI) (CA

INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

IT 168960-19-8 229177-39-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 4-[(2,5-diamino-6-halopyrimidin-4-yl)amino]cyclopent-2-enylmethanols from 2,5-diamino-4,6-dihalopyrimidines and 4-aminocyclopent-2-enylmethanol)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:53929 HCAPLUS

DN 132:107046

TI Preparation of optically active azabicycloheptenone derivatives by stereospecific enzymic hydrolysis

IN Bernegger-Egli, Christine; Brux, Frank; Roduit, Jean Paul; Werbitzky, Oleg; Guggisberg, Yves

PA Lonza A.-G., Switz.

SO PCT Int. Appl., 27 pp.

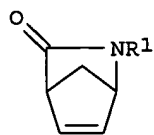
CODEN: PIXXD2

DT Patent

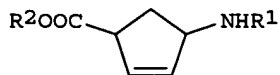
LA German

FAN.CNT 1

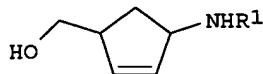
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO2000003032	A1	20000128	1999WO-EP04814	19990708
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RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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EP---1095160	A1	20010502	1999EP-0938217	19990708
EP---1095160	B1	20040128		
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PT---1095160	T	20040630	1999PT-0938217	19990708
ES---2214876	T3	20040916	1999ES-0938217	19990708
NO2001000121	A	20010108	2001NO-0000121	20010108
US---6780634	B1	20040824	2001US-0743391	20010417
US2004167351	A1	20040826	2004US-0779339	20040213
PRAI 1998EP-0112719	A	19980709		
1998EP-0123949	A	19981217		
1999WO-EP04814	W	19990708		
2001US-0743391	A3	20010417		
OS MARPAT 132:107046				
GI				



I



II



III

AB The invention relates to a biotechnol. method for producing optically active compds. of general formulas (I) and (II), wherein R1 represents acyl or acyloxy, and R2 represents H or C1-C10 alkyl, by reaction of the racemic lactam using a hydrolase in the presence of a nucleophile and in the presence of a base in a constant pH range. The invention also relates to the subsequent conversion of compound I into the optically active 1-amino-4-(hydroxymethyl)-2-cyclopentene of formula (III). Racemic 2-acetyl-2-azabicyclo[2.2.1]hept-5-en-3-one 419.25 mL was diluted with water 60 mL and a com. subtilisin solution 31.5 mL. This solution was brought to pH 7.5 and incubated at 30° with vigorous stirring. After 45 h (1R,4S)-2-Acetyl-2-azabicyclo[2.2.1]hept-5-en-3-one with an ee 99% was obtained. Final yield of purified product was 31%.

IT 136522-35-5DP, derivs.

RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis)

RN 136522-35-5 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 136522-35-5DP, derivs.

RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of optically active azabicycloheptenone derivs. by stereospecific enzymic hydrolysis)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:425590 HCAPLUS

DN 131:73379

TI Preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates

IN Brieden, Walter; Schroer, Josef; Bernegger-Egli, Christine; Urban, Eva Maria; Petersen, Michael; Roduit, Jean-Paul; Berchtold, Katja; Breitbach, Holger

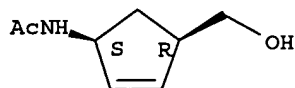
PA Lonza A.-G., Switz.

SO Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW  
 DT Patent  
 LA German  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP----926131	A2	19990630	1998EP-0122293	19981124 <--
	EP----926131	A3	20000322		
	EP----926131	B1	20040211		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	SK----284416	B6	20050304	1998SK-0001615	19981123 <--
	SK----284594	B6	20050701	2004SK-0000401	19981123 <--
	SK----284595	B6	20050701	2004SK-0000402	19981123 <--
	SK----284596	B6	20050701	2004SK-0000403	19981123 <--
	AT----259345	E	20040215	1998AT-0122293	19981124 <--
	US---6723868	B1	20040420	1998US-0198427	19981124 <--
	EP---1418170	A2	20040512	2004EP-0002913	19981124 <--
	EP---1418170	A3	20040519		
	EP---1418170	B1	20060607		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	PT----926131	T	20040630	1998PT-0122293	19981124 <--
	ES---2215264	T3	20041001	1998ES-0122293	19981124 <--
	EP---1508565	A1	20050223	2004EP-0027540	19981124 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	EP---1657243	A1	20060517	2006EP-0002571	19981124 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI, CY				
	CA---2254693	AA	19990527	1998CA-2254693	19981125 <--
	MX---9809879	A	20000831	1998MX-0009879	19981125 <--
	NO---9805511	A	19990528	1998NO-0005511	19981126 <--
	NO---318697	B1	20050425		
	IL---127277	A1	20040831	1998IL-0127277	19981126 <--
	IL---142622	A1	20040831	1998IL-0142622	19981126 <--
	IL---142623	A1	20040831	1998IL-0142623	19981126 <--
	CN---1218795	A	19990609	1998CN-0123022	19981127 <--
	JP--11228510	A2	19990824	1998JP-0337437	19981127 <--
	CN---1550490	A	20041201	CN 2004-10043555	19981127 <--
	CN---1550553	A	20041201	CN 2004-10043556	19981127 <--
	CN---1550500	A	20041201	CN 2004-10043558	19981127 <--
	US2002010360	A1	20020124	2001US-0772501	20010130 <--
	US---6448402	B2	20020910		
	US2004142436	A1	20040722	2003US-0695930	20031029 <--
	NO2004004368	A	19990528	2004NO-0004368	20041014 <--
	NO2004004369	A	19990528	2004NO-0004369	20041014 <--
	NO2004004370	A	19990528	2004NO-0004370	20041014 <--
PRAI	1997CH-0002739	A	19971127		
	1997CH-0002781	A	19971203	<--	
	1998CH-0000133	A	19980121	<--	
	1998CH-0000723	A	19980327	<--	
	1998EP-0118895	A	19981007		
	1998EP-0122293	A3	19981124		
	2004EP-0002913	A3	19981124		
	1998US-0198427	A3	19981124	<--	
	1998IL-0127277	A3	19981126		
AB	Title compds. were prepared by metal hydride reduction of 2-azabicyclo[2.2.1]hept-5-en-3-one.				
IT	65942-42-9P				
	RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)				
RN	65942-42-9 HCAPLUS				
CN	Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)				

Relative stereochemistry.



IT 65942-42-9P  
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT 122624-72-0P 130931-86-1P 136522-30-0P 136522-35-5P 168960-18-7P 216481-85-5P 229177-39-3P 229177-46-2P 229177-49-5P 229177-52-0P  
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT 168960-19-8 229177-60-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

L38 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:760072 HCAPLUS  
 DN 130:24137  
 TI Multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol  
 IN Bernegger, Christine; Urban, Eva-Maria; Birch, Olwen Mary; Burgdorf, Kurt; Brux, Frank; Etter, Kay-Sara; Bossard, Pierre; Brieden, Walter; Duc, Laurent; Gordon, John; O'murchu, Colm; Guggisberg, Yves  
 PA Lonza Ag, Switz.  
 SO Eur. Pat. Appl., 39 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP----878548	A2	19981118	1998EP-0108721	19980513
EP----878548	A3	19991013		
EP----878548	B1	20040901		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
SK----284810	B6	20051201	1998SK-0000589	19980504
US---6156893	A	20001205	1998US-0073553	19980506
CA---2237297	AA	19981113	1998CA-2237297	19980511
NO---9802149	A	19981116	1998NO-0002149	19980512
JP--11005793	A2	19990112	1998JP-0129338	19980512
CN---1201794	A	19981216	1998CN-0108865	19980513
CN---1115343	B	20030723		
CN---1515673	A	20040728	CN 2003-2003123433	19980513
AT---275206	E	20040915	1998AT-0108721	19980513
PT---878548	T	20050131	1998PT-0108721	19980513
EP---1502914	A1	20050202	2004EP-0020273	19980513
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, RO				
ES---2223095	T3	20050216	1998ES-0108721	19980513
US---6137007	A	20001024	1999US-0373862	19990813
US---6252112	B1	20010626	1999US-0373857	19990813
US---6262295	B1	20010717	1999US-0373856	19990813

PRAI 1997CH-0001116 A 19970513  
1997CH-0002740 A 19971127  
1998US-0073553 A3 19980506  
1998EP-0108721 A3 19980513

OS CASREACT 130:24137; MARPAT 130:24137

AB A new procedure for the production of (1S,4R)- (I) or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol (II) is claimed.  
 (±)-2-Azabicyclo[2.2.1]hept-5-en-3-one is acylated at the amide NH and the compound is cleaved to form the racemic acylamino cyclopentene derivative. This is stereospecifically deacylated by a biotechnol. process to produce (1S,4R)- or (1R,4S)-1-amino-4-hydroxymethyl-2-cyclopentene. A 4th step is the reaction with N-(2-amino-4,6-dichloropyrimidine-5-yl)formamide to produce (1S,4R)- and/or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino]-2-cyclopentene-1-methanol, which are cyclized to produce compds. I and II.

IT 168960-19-8P

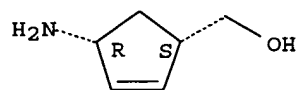
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); SPN (Synthetic preparation); PUR (Purification or recovery); PREP (Preparation); SPN (Synthetic preparation); PREP (Preparation); PREP (Preparation)

(multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

RN 168960-19-8 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, hydrochloride, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● HCl

IT 168960-19-8P

RL: BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
 (multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

IT 130931-86-1P 168960-18-7P 216481-85-5P

RL: BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

IT 136522-35-5P

RL: BPN (Biosynthetic preparation); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
 (multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

IT 216481-84-4P 216481-86-6P

RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (multistep process for the preparation of (1S,4R)- and/or (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

IT 199395-80-7P 199395-81-8P 199395-82-9P

199395-84-1P 199395-85-2P 216481-83-3P

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP

(Properties); PUR (Purification or recovery); RCT (Reactant);  
 SPN (Synthetic preparation); BIOL (Biological study); PREP  
 (Preparation); PROC (Process); RACT (Reactant or reagent)  
 (multistep process for the preparation of (1S,4R)- and/or  
 (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

IT 863638-17-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (multistep process for the preparation of (1S,4R)- and/or  
 (1R,4S)-4-(2-amino-6-chloro-9-H-purin-9-yl)-2-cyclopentene-1-methanol)

L38 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:805825 HCAPLUS

DN 128:32314

TI Process for the preparation of amino alcohols and derivatives thereof

IN Bernegger-Egli, Christine; Birch, Olwen M.; Bossard, Pierre;

Brieden, Walter; Brux, Frank; Burgdorf, Knut; Duc, Laurent; Etter,

Kay-Sarah; Guggisberg, Ives; Sauter, Martin; Urban, Eva Maria

PA Lonza A.-G., Switz.; Bernegger-Egli, Christine; Birch, Olwen M.; Bossard,

Pierre; Brieden, Walter; Brux, Frank; Burgdorf, Knut; Duc, Laurent

SO PCT Int. Appl., 68 pp.

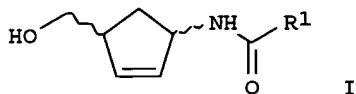
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO---9745529	A1	19971204	1997WO-EP02838	19970530
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA---2253977	AA	19971204	1997CA-2253977	19970530
	AU---9731705	A1	19980105	1997AU-0031705	19970530
	EP---904348	A1	19990331	1997EP-0927092	19970530
	EP---904348	B1	20041124		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	CN---1220695	A	19990623	1997CN-0195182	19970530
	JP2000512488	T2	20000926	1997JP-0541630	19970530
	IL---127235	A1	20030410	1997IL-0127235	19970530
	AT---283348	E	20041215	1997AT-0927092	19970530
	ES---2229362	T3	20050416	1997ES-0927092	19970530
	PT---904348	T	20050429	1997PT-0927092	19970530
	KR2000016124	A	20000325	1998KR-0709691	19981128
	US---6368850	B1	20020409	1999US-0194626	19990521
	US2003008360	A1	20030109	2001US-0992982	20011114
	US---6787347	B2	20040907		
	US2004265985	A1	20041230	2004US-0896223	20040721
PRAI	1996CH-0001359	A	19960530		
	1997CH-0000282	A	19970210		
	1997CH-0000908	A	19970418		
	1997WO-EP02838	W	19970530		
	1999US-0194626	A3	19990521		
	2001US-0992982	A3	20011114		
OS	CASREACT 128:32314; MARPAT 128:32314				
GI					





AB The invention relates to novel microorganisms which are capable of utilizing cyclopentene derivs. of the general formula (I), in which R1 is C1-C4-alkyl, C1-C4-alkoxy, aryl or aryloxy, as the only N source, as the only C source or as the only C and O source. The invention also relates to novel enzymes which hydrolyze the cyclopentene derivs. of the general formula I. The invention also relates to a novel process for the preparation of (1R,4S) or (1S,4R)-1-amino-4(hydroxymethyl)-2-cyclopentene and/or of a (1S,4R) or (1R,4S)-amino alc. derivative in which R1 has the above meaning.

IT 136522-30-0P

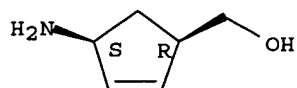
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); SPN (Synthetic preparation); SPN (Synthetic preparation); PREP (Preparation); PREP (Preparation)

(preparation of amino alcs. and derivs. thereof from azabicycloheptenones and microbial metabolism of the products)

RN 136522-30-0 HCAPLUS

CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 136522-30-0P 136522-35-5P

RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of amino alcs. and derivs. thereof from azabicycloheptenones and microbial metabolism of the products)

IT 199395-80-7P 199395-81-8P 199395-82-9P

199395-83-0P 199395-84-1P 199395-85-2P

RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(preparation of amino alcs. and derivs. thereof from azabicycloheptenones and microbial metabolism of the products)

=> d bib abs hitstr 145 tot

L45 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:394306 HCAPLUS

DN 129:54134

TI preparation and resolution of cyclopentenols synthons of carbocyclic nucleosides

IN Sickles, Barry Riddle; Ingold, Kenneth James; Wallis, Christopher John

PA Glaxo Group Limited, UK

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA English

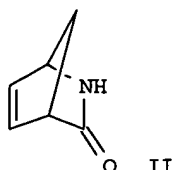
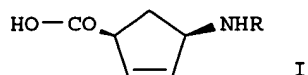
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO---9824741	A2	19980611	1997WO-EP06782	19971204
	WO---9824741	A3	19980911		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,

US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,  
 GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,  
 GN, ML, MR, NE, SN, TD, TG

AU---	9855601	A1	19980629	1998AU-0055601	19971204 <--
EP---	946496	A2	19991006	1997EP-0952036	19971204 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP2001505210	T2	20010417	1998JP-0525202	19971204 <--	
US---	6147254	A	20001114	1999US-0319496	19990806 <--
PRAI	1996GB-0025455	A	19961207	<--	
	1997WO-EP06782	W	19971204	<--	
OS	MARPAT 129:54134				
GI					



AB Carbocyclic stereoisomers, e.g. I, (R = protecting group) were prepared as synthons of carbocyclic nucleosides. Thus, I (R = Boc) was prepared from racemic lactam II in 6 steps.

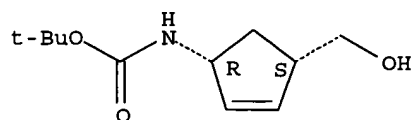
IT 168960-18-7P

RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and resolution of cyclopentenyl synthons of carbocyclic nucleosides)

RN 168960-18-7 HCAPLUS

CN Carbamic acid, [(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L45 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1991:608462 HCAPLUS

DN 115:208462

TI Preparation of purinyl cyclopentenemethanol derivatives as medical antivirals

IN Daluge, Susan Mary

PA Wellcome Foundation Ltd., UK

SO Eur. Pat. Appl., 35 pp.

CODEN: EPXXDW

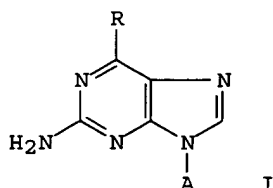
DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP---434450	A2	19910626	1990EP-0314089	19901221
	EP---434450	A3	19920708		

EP----434450 B1 19990707  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE  
 US---5034394 A 19910723 1989US-0455201 19891222  
 EP----921121 A1 19990609 1999EP-0103525 19901221  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE  
 EP----921114 A1 19990609 1999EP-0103526 19901221  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE  
 PRAI 1989US-0455201 A 19891222  
 1988GB-0015265 A 19880627  
 1989US-0371870 B2 19890626  
 1990EP-0314089 A3 19901221  
 OS MARPAT 115:208462  
 GI



AB Title compound I (R = cyclopropylamino, N-cyclopropyl-N-methylamino; A = 1S,4R- or 1R,4S-2-cyclopentene-1-methanol-4-yl) and related analogs were prepared as medical antivirals. Thus, (±)-cis-4-acetamidocyclopent-2-enemethyl acetate was converted to the free amine then condensed with dibenzoyl D-tartaric acid and the tartrate formed was converted to (1S,4R)-4-amino-2-cyclopentene-1-methanol. This was condensed with N-(4,6-dichloro-5-formamido-2-pyrimidinyl)acetamide (preparation given) and the resulting product refluxed in diethoxymethyl acetate to give (-)-(1S,4R)-cis-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol, which was heated with cyclopropylamine to give (-)-(1S,4R)-cis-I (R = cyclopropylamino) (II). II had IC50 of 4.0 ± 1.4 µM against HIV in MT4 cells. I were formulated as e.g., tablets and capsules.

IT 122624-72-0P 136470-89-8P 136522-31-1P  
 136522-35-5P 136597-78-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for preparation of medical antivirals)

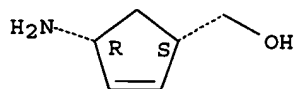
RN 122624-72-0 HCAPLUS  
 CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



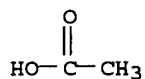
RN 136470-89-8 HCAPLUS  
 CN 2-Cyclopentene-1-methanol, 4-amino-, cis-, acetate (salt) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 122624-72-0  
 CMF C6 H11 N O

Relative stereochemistry.



CM 2

CRN 64-19-7  
CMF C2 H4 O2

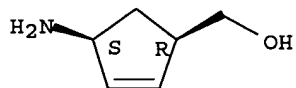


RN 136522-31-1 HCAPLUS  
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2R,3R)-, compd. with  
(1R,4S)-4-amino-2-cyclopentene-1-methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 136522-30-0  
CMF C6 H11 N O

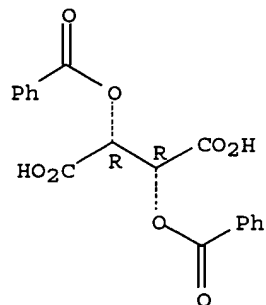
Absolute stereochemistry. Rotation (+).



CM 2

CRN 2743-38-6  
CMF C18 H14 O8

Absolute stereochemistry. Rotation (-).



RN 136522-35-5 HCAPLUS  
CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 136597-78-9 HCAPLUS

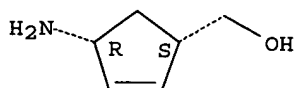
CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2S,3S)-, compd. with  
(1S,4R)-4-amino-2-cyclopentene-1-methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 136522-35-5

CMF C6 H11 N O

Absolute stereochemistry. Rotation (-).

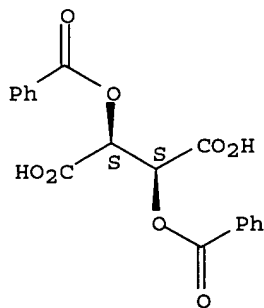


CM 2

CRN 17026-42-5

CMF C18 H14 O8

Absolute stereochemistry. Rotation (+).



=> => b uspatall

FILE 'USPATFULL' ENTERED AT 10:48:11 ON 21 JUN 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 10:48:11 ON 21 JUN 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs fhitrn hitrn 2-3 6 13 148

L48 ANSWER 2 OF 13 USPATFULL on STN

AN 2004:184553 USPATFULL

TI Process for the preparation of aminoalcohol derivatives and their  
further conversion to (1R,4S)-4-(2-amino-6-chloro-5-formamido-4-  
pyrimidinyl)-amino)-2-cyclopentenyl-1-methanol

IN Brieden, Walter, Brig, SWITZERLAND

Schroer, Josef, Susten, SWITZERLAND

Bernegger-Egli, Christine, Munster, SWITZERLAND

Urban, Eva Maria, Visp, SWITZERLAND

Petersen, Michael, Visp, SWITZERLAND  
 Roduit, Jean-Paul, Grone, SWITZERLAND  
 Berchtold, Katja, Baltschieder, SWITZERLAND  
 Breitbach, Holger, Baltschieder, SWITZERLAND  
 PI US2004142436 A1 20040722  
 AI 2003US-0695930 A1 20031029 (10)  
 RLI Division of Ser. No. 1998US-0198427, filed on 24 Nov 1998, GRANTED, Pat.  
 No. US---6723868  
 PRAI 1997CH-0002739 19971127  
 1997CH-0002781 19971203  
 1998CH-0000133 19980121  
 1998CH-0000723 19980327  
 1998EP-0118895 19981007  
 DT Utility  
 FS APPLICATION  
 LREP DARBY & DARBY P.C., P O. BOX 5257, NEW YORK, NY, 10150-5257  
 CLMN Number of Claims: 15  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1309  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The invention relates to a novel process for the preparation of an aminoalcohol of the formula ##STR1##

racemically or optically active, starting from 2-azabicyclo[2.2.1]hept-5-en-3-one, its further conversion to give the corresponding acyl derivative and its further conversion to (1S,4R)- or (1R,4S)-4-(2-amino-6-chloro-9-H-purine-9-yl)-2-cyclopentenyl-1-methanol of the formulae ##STR2##

In the latter synthesis, the aminoalcohol is converted into the corresponding D- or L-tartrate, which is then reacted with N-(2-amino-4,6-dichloropyrimidin-5-yl) form amide of the formula ##STR3##

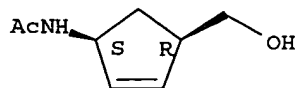
to give (1S,4R)- or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentenyl-1-methanol of the formulae ##STR4##

and then cyclized to give the end compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 65942-42-9P  
 (preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)  
 RN 65942-42-9 USPATFULL  
 CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI)  
 (CA INDEX NAME)

Relative stereochemistry.



IT 65942-42-9P  
 (preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)  
 IT 122624-72-0P 130931-86-1P 136522-30-0P  
 136522-35-5P 168960-18-7P 216481-85-5P  
 229177-39-3P 229177-46-2P 229177-49-5P  
 229177-52-0P  
 (preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)  
 IT 168960-19-8 229177-60-0

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

L48 ANSWER 3 OF 13 USPATFULL on STN

AN 2004:97427 USPATFULL

TI Process for the preparation of aminoalcohol derivatives and their further conversion to (1R,4S)-4-((2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino)-2-cyclopentenyl-1-methanol

IN Brieden, Walter, Brig, SWITZERLAND

~~Schroder, Josef, Susten, SWITZERLAND~~

Bernegger-Egli, Christine, Munster, SWITZERLAND

Urban, Eva Maria, Visp, SWITZERLAND

Petersen, Michael, Visp, SWITZERLAND

Roduit, Jean-Paul, Grone, SWITZERLAND

Berchtold, Katja, Baltschieder, SWITZERLAND

Breithach, Holger, Baltschieder, SWITZERLAND

PA Lonza AG, Basel, SWITZERLAND (non-U.S. corporation)

PI US---6723868 B1 20040420

AI 1998US-0198427 19981124 (9)

PRAI 1997CH-0002739 19971127

1997CH-0002781 19971203

1998CH-0000133 19980121

1998CH-0000723 19980327

1998EP-0118895 19981007

DT Utility

FS GRANTED

EXNAM Primary Examiner: Meller, Michael V.

LREP Darby & Darby

CLMN Number of Claims: 10

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 1195

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a novel process for the preparation of an aminoalcohol of the formula ##STR1##

racemically or optically active, starting from 2-azabicyclo[2.2.1]hept-5-en-3-one, its further conversion to give the corresponding acyl derivative and its further conversion to (1S,4R)- or (1R,4S)-4-(2-amino-6-chloro-9H-purine-9-yl)-2-cyclopentenyl-1-methanol of the formulae ##STR2##

In the latter synthesis, the aminoalcohol is converted into the corresponding D- or L-tartrate, which is then reacted with N-(2-amino-4,6-dichloropyrimidin-5-yl)formamide of the formula ##STR3##

to give (1S,4R)- or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentenyl-1-methanol of the formulae ##STR4##

and then cyclized to give the end compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

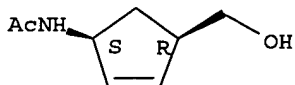
IT 65942-42-9P

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

RN 65942-42-9 USPATFULL

CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



IT 65942-42-9P  
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT 122624-72-0P 130931-86-1P 136522-30-0P  
136522-35-5P 168960-18-7P 216481-85-5P  
229177-39-3P 229177-46-2P 229177-49-5P  
229177-52-0P  
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT 168960-19-8 229177-60-0  
(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

L48 ANSWER 6 OF 13 USPATFULL on STN

AN 2002:17479 USPATFULL

TI Process for the preparation of aminoalcohol derivatives and their further conversion to (1R, 4S)-4-((2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino)-2-cyclopentenyl-1-methanol

IN Brieden, Walter, Brig, SWITZERLAND  
Schroer, Josef, Susten, SWITZERLAND  
Bernegger-Egli, Christine, Munster, SWITZERLAND  
Urban, Eva Maria, Visp, SWITZERLAND  
Petersen, Michael, Visp, SWITZERLAND  
Roduit, Jean-Paul, Grone, SWITZERLAND  
Berchtold, Katja, Baltschieder, SWITZERLAND  
Breitbach, Holger, Baltschieder, SWITZERLAND

PA Lonza AG, Basel, SWITZERLAND, CH-4002 (non-U.S. corporation)

PI US2002010360 A1 20020124  
US---6448402 B2 20020910

AI 2001US-0772501 A1 20010130 (9)

RLI Division of Ser. No. 1998US-0198427, filed on 24 Nov 1998, PENDING

PRAI 1997CH-0002739 19971127  
1997CH-0002781 19971203  
1998CH-0000133 19980121  
1998CH-0000723 19980327  
1998EP-0118895 19981007

DT Utility

FS APPLICATION

LREP Bert J. Lewen, DARBY & DARBY P.C., 805 Third Avenue, New York, NY, 10022

CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1304

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a novel process for the preparation of an aminoalcohol of the formula ##STR1##

racemically or optically active, starting from 2-azabi-cyclo[2.2.1]hept-5-en-3-one, its further conversion to give the corresponding acyl derivative and its further conversion to (1S,4R)- or (1R,4S)-4-(2-amino-6-chloro-9-H-purine-9-yl)-2-cyclopentenyl-1-methanol of the formulae ##STR2##

In the latter synthesis, the aminoalcohol is converted into the corresponding D- or L-tartrate, which is then reacted with N-(2-amino-4,6-dichloropyrimidin-5-yl) formamide of the formula ##STR3##

to give (1S,4R)- or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentenyl-1-methanol of the formulae ##STR4##

and then cyclized to give the end compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 65942-42-9P

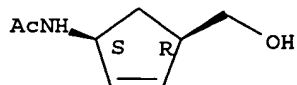


(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

RN 65942-42-9 USPATFULL

CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



IT 65942-42-9P

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT 122624-72-0P 130931-86-1P 136522-30-0P  
136522-35-5P 168960-18-7P 216481-85-5P  
229177-39-3P 229177-46-2P 229177-49-5P  
229177-52-0P

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT 168960-19-8 229177-60-0

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

L48 ANSWER 13 OF 13 USPAT2 on STN

AN 2002:17479 USPAT2

TI Process for the preparation of aminoalcohol derivatives and their further conversion to (1R, 4S)-4-((2-amino-6-chloro-5-formamido-4-pyrimidinyl)-amino)-2-cyclopentenyl-1-methanol

IN Brieden, Walter, Brig, SWITZERLAND  
Schroer, Josef, Susten, SWITZERLAND  
Bernegger-Egli, Christine, Munster, SWITZERLAND  
Urban, Eva Maria, Visp, SWITZERLAND  
Petersen, Michael, Visp, SWITZERLAND  
Roduit, Jean-Paul, Grone, SWITZERLAND  
Berchtold, Katja, Baltschieder, SWITZERLAND  
Breitbach, Holger, Baltschieder, SWITZERLAND

PA Lonza AG, Basel, SWITZERLAND (non-U.S. corporation)

PI US---6448402 B2 20020910

AI 2001US-0772501 20010130 (9)

RLI Division of Ser. No. 1998US-0198427 filed on 14 Nov 1998

PRAI 1997CH-0002739 199711127

1997CH-0002781 19971203

1998CH-0000133 19980121

1998CH-0000723 19980327

1998EP-0118895 19981007

DT Utility

FS GRANTED

EXNAM Primary Examiner: Berch, Mark L.

LREP Darby & Darby

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 1206

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a novel process for the preparation of an aminoalcohol of the formula ##STR1##

racemically or optically active, starting from 2-azabicyclo[2.2.1]hept-5-en-3-one, its further conversion to give the corresponding acyl derivative and its further conversion to (1S,4R)-- or (1R,4S)-4-(2-amino-6-chloro-9-H-purine-9-yl)-2-cyclopentenyl-1-methanol of the formulae ##STR2##

In the latter synthesis, the aminoalcohol is converted into the corresponding D- or L-tartrate, which is then reacted with N-(2-amino-4,6-dichloropyrimidin-5-yl)formamide of the formula ##STR3##

to give (1S,4R)-- or (1R,4S)-4-[(2-amino-6-chloro-5-formamido-4-pyrimidinyl)amino]-2-cyclopentenyl-1-methanol of the formulae ##STR4##

and then cyclized to give the end compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

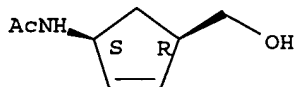
IT 65942-42-9P

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

RN 65942-42-9 USPAT2

CN Acetamide, N-[(1R,4S)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, rel- (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



IT 65942-42-9P

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT 122624-72-0P 130931-86-1P 136522-30-0P

136522-35-5P 168960-18-7P 216481-85-5P

229177-39-3P 229177-46-2P 229177-49-5P

229177-52-0P

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

IT 168960-19-8 229177-60-0

(preparation of 4-amino-2-cyclopentenemethanol enantiomers as drug intermediates)

=> d bib abs hitstr 1 4-5 7-12

L48 ANSWER 1 OF 13 USPATFULL on STN

AN 2004:228019 USPATFULL

TI Methods and compounds for inhibitting MRP1

IN Kroin, Julian, Indianapolis, IN, UNITED STATES

Norman, Bryan Hurst, Indianapolis, IN, UNITED STATES

York, Jeremy Schulenburg, Indianapolis, IN, UNITED STATES

PI US2004176405 A1 20040909

AI 2004US-0797362 A1 20040310 (10)

RLI Division of Ser. No. 2002US-0130800, filed on 21 May 2002, GRANTED, Pat. No. US---6743794 A 371 of International Ser. No. 2000WO-US32443, filed on 11 Dec 2000, PENDING

PRAI 1999US-171373P 19991222 (60)

2000US-226076P 20000817 (60)

2000US-234539P 20000922 (60)

DT Utility

FS APPLICATION

LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN, 46206-6288

CLMN Number of Claims: 71

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 12657

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention further relates to a method of inhibiting MRP1 in

a mammal which comprises administering to a mammal in need thereof an effective amount of a compound of formula (I). ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

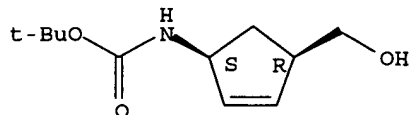
IT 153011-43-9P

(preparation of N-isoxazoloquinolinylcyclohexylcarboxamides and analogs as MRP1 inhibitors)

RN 153011-43-9 USPATFULL

CN Carbamic acid, [(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L48 ANSWER 4 OF 13 USPATFULL on STN

AN 2003:306989 USPATFULL

TI Tricyclic compounds as mrp1-inhibitors

IN Lander, Peter Ambrose, Indianapolis, IN, UNITED STATES

Wang, Quiping, Hamden, CT, UNITED STATES

Vepachedu, Sreenivasarao, Palo Alto, CA, UNITED STATES

PI US2003216425 A1 20031120

US---6673809 B2 20040106

AI 2003US-0296481 A1 20030416 (10)

2001WO-US16475 20010601

DT Utility

FS APPLICATION

LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN, 46206-6288

CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1612

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB ##STR1##

The present invention relates to a compounds of formula I, wherein A is olefin, diol, or acetonide; which are useful for inhibiting resistant neoplasms where the resistance is conferred in part or in total by MRP1.

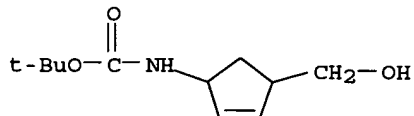
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216481-83-3P

(preparation of 5H-isoxazolo[4,3-c]quinolin-4-ones as MRP1 inhibitors)

RN 216481-83-3 USPATFULL

CN Carbamic acid, [4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L48 ANSWER 5 OF 13 USPATFULL on STN

AN 2003:146829 USPATFULL

TI Methods and compounds for inhibiting mrp1

IN Bonjouklian, Rosanne, Zionsville, IN, UNITED STATES

Cohen, Jeffrey Daniel, Indianapolis, IN, UNITED STATES  
 Gruber, Joseph Michael, Brownsburg, IN, UNITED STATES  
 Johnson, Douglas Webb, Zionsville, IN, UNITED STATES  
 Jungheim, Louis Nickolaus, Indianapolis, IN, UNITED STATES  
 Kroin, Julian Stanley, Indianapolis, IN, UNITED STATES  
 Lander, Peter Ambrose, Indianapolis, IN, UNITED STATES  
 Lin, Ho-Shen, Indianapolis, IN, UNITED STATES  
 Lohman, Mark Christopher, Boulder, CO, UNITED STATES  
 Muehl, Brian Stephen, Greenwood, IN, UNITED STATES  
 Norman, Bryan Hurst, Indianapolis, IN, UNITED STATES  
 Patel, Vinod Francis, Acton, MA, UNITED STATES  
 Richett, Michael Enrico, Indianapolis, IN, UNITED STATES  
 Thrasher, Kenneth Jeff, Indianapolis, IN, UNITED STATES  
 Vepachedu, Sreenivasarao, Palo Alto, CA, UNITED STATES  
 White, Wesley Todd, Indianapolis, IN, UNITED STATES  
 Xie, Yongping, Naperville, IL, UNITED STATES  
 York, Jeremy Schulenburg, Indianapolis, IN, UNITED STATES  
 Parkhurst, Brandon Lee, Indianapolis, IN, UNITED STATES

PI US2003100576 A1 20030529  
 US---6743794 B2 20040601  
 AI 2002US-0130800 A1 20020521 (10)  
 2000WO-US32443 20001211

DT Utility

FS APPLICATION

LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN, 46206-6288

CLMN Number of Claims: 71

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 14296

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention further relates to a method of inhibiting MRP1 in a mammal which comprises administering to a mammal in need thereof an effective amount of a compound of formula (I).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

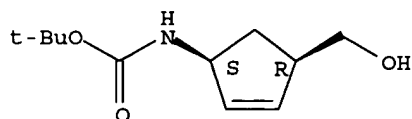
IT 153011-43-9P

(preparation of N-isoxazoloquinolinylcyclohexylcarboxamides and analogs as MRP1 inhibitors)

RN 153011-43-9 USPATFULL

CN Carbamic acid, [(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L48 ANSWER 7 OF 13 USPATFULL on STN

AN 93:33687 USPATFULL

TI 4-amino-2-cyclopentene-1-methanol

IN Daluge, Susan M., Chapel Hill, NC, United States

PA Burroughs Wellcome Co., Research Triangle Park, NC, United States (U.S. corporation)

PI US---5206435

19930427

AI 1991US-0767134

19910927 (7)

RLI Division of Ser. No. 1990US-0630129, filed on 19 Dec 1990, now patented, Pat. No. US---5087697 which is a continuation-in-part of Ser. No. 1989US-0455201, filed on 22 Dec 1989, now patented, Pat. No. US---5034394 which is a continuation-in-part of Ser. No. 1989US-0371870, filed on 26 Jun 1989, now abandoned

PRAI 1988GB-0015265 19880627  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Tsang, Cecilia  
 LREP Brown, Donald, Nielsen, Lawrence A., Green, Hannah O.  
 CLMN Number of Claims: 4  
 ECL Exemplary Claim: 1,4  
 DRWN No Drawings  
 LN.CNT 1592

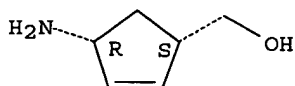
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to 6-substituted purine carbocyclic nucleosides and their use in medical therapy particularly in the treatment of HIV and HBV infections. The invention also relates to pharmaceutical formulations and processes for the preparation of compounds according to the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

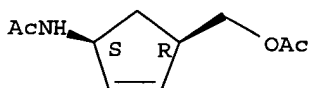
IT 122624-72-0P  
 (preparation of, as intermediate for virucide)  
 RN 122624-72-0 USPATFULL  
 CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 61865-50-7  
 (saponification of)  
 RN 61865-50-7 USPATFULL  
 CN Acetamide, N-[(1R,4S)-4-[(acetyloxy)methyl]-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L48 ANSWER 8 OF 13 USPATFULL on STN  
 AN 92:12958 USPATFULL  
 TI Therapeutic nucleosides  
 IN Daluge, Susan M., Chapel Hill, NC, United States  
 PA Burroughs Wellcome Co., Research Triangle Park, NC, United States (U.S. corporation)  
 PI US--~~5089500~~ 19920218  
 AI 1991US-0697260 19910508 (7)  
 RLI Continuation of Ser. No. 1989US-0455201, filed on 22 Dec 1989, now patented, Pat. No. US---5034394 which is a continuation of Ser. No. 1989US-0371870, filed on 26 Jun 1989, now abandoned  
 PRAI 1988GB-0015265 19880627  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Shen, Cecilia  
 LREP Brown, Donald, Nielsen, Lawrence A., Green, Hannah O.  
 CLMN Number of Claims: 17  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1563  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to 6-substituted purine carbocyclic nucleosides and their use in medical therapy particularly in the treatment of HIV and HBV infections. Also provided are pharmaceutical formulations and processes for the preparation of compounds according to the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

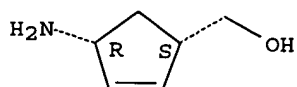
IT 122624-72-0P

(preparation of, as intermediate for virucide)

RN 122624-72-0 USPATFULL

CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



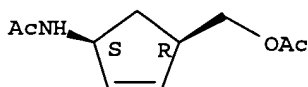
IT 61865-50-7

(saponification of)

RN 61865-50-7 USPATFULL

CN Acetamide, N-[(1R,4S)-4-[(acetyloxy)methyl]-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L48 ANSWER 9 OF 13 USPATFULL on STN

AN 92:10941 USPATFULL

TI Therapeutic nucleosides

IN Daluge, Susan M., Chapel Hill, NC, United States

PA Burroughs Wellcome Co., Research Triangle Park, NC, United States (U.S. corporation)

PI US--5087697 19920211

AI 1990US-0630129 19901219 (7)

RLI Continuation-in-part of Ser. No. 1989US-0455201, filed on 22 Dec 1989 which is a continuation-in-part of Ser. No. 1989US-0371870, filed on 26 Jun 1989, now abandoned

PRAI 1988GB-0015265 19880627

DT Utility

FS Granted

EXNAM Primary Examiner: Shen, Cecilia

LREP Brown, Donald, Nielsen, Lawrence A., Green, Hannah O.

CLMN Number of Claims: 9

ECL Exemplary Claim: 1,9

DRWN No Drawings

LN.CNT 1607

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to 6-substituted purine carbocyclic nucleosides and their use in medical therapy particularly in the treatment of HIV and HBV infections. The invention also relates to pharmaceutical formulations and processes for the preparation of compounds according to the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

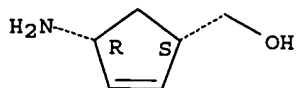
IT 122624-72-0P

(preparation of, as intermediate for virucide)

RN 122624-72-0 USPATFULL

CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



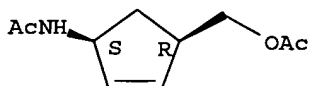
IT 61865-50-7

(saponification of)

RN 61865-50-7 USPATFULL

CN Acetamide, N-[(1R,4S)-4-[(acetyloxy)methyl]-2-cyclopenten-1-yl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L48 ANSWER 10 OF 13 USPATFULL on STN

AN 91:58937 USPATFULL

TI Therapeutic nucleosides

IN Daluge, Susan M., Chapel Hill, NC, United States

PA Burroughs Wellcome Co., Research Triangle Park, NC, United States (U.S. corporation)

PI US--(5034394) 19910723

AI 1989US-0455201 19891222 (7)

RLI Continuation-in-part of Ser. No. 1989US-0371870, filed on 26 Jun 1989, now abandoned

PRAI 1988GB-0015265 19880627

DT Utility

FS Granted

EXNAM Primary Examiner: Shen, Cecilia

LREP Brown, Donald, Nielsen, Lawrence A., Green, Hannah O.

CLMN Number of Claims: 20

ECL Exemplary Claim: 1,18

DRWN No Drawings

LN.CNT 1548

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to 6-substituted purine carbocyclic nucleosides and their use in medical therapy particularly in the treatment of HIV and HBV infections. Also provided are pharmaceutical formulations and processes for the preparation of compounds according to the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

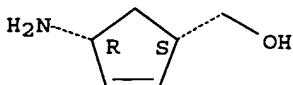
IT 122624-72-0P 136470-89-8P 136522-35-5P,  
(1S,4R)-4-Amino-2-cyclopentene-1-methanol 136597-78-9P  
138923-02-1P

(preparation of, as intermediate for antiviral agents)

RN 122624-72-0 USPATFULL

CN 2-Cyclopentene-1-methanol, 4-amino-, (1R,4S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 136470-89-8 USPATFULL  
 CN 2-Cyclopentene-1-methanol, 4-amino-, cis-, acetate (salt) (9CI) (CA INDEX NAME)

CM 1

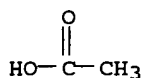
CRN 122624-72-0  
 CMF C6 H11 N O

Relative stereochemistry.



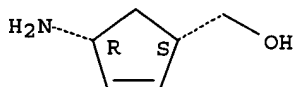
CM 2

CRN 64-19-7  
 CMF C2 H4 O2



RN 136522-35-5 USPATFULL  
 CN 2-Cyclopentene-1-methanol, 4-amino-, (1S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 136597-78-9 USPATFULL  
 CN Butanedioic acid, 2,3-bis(benzoyloxy)-, (2S,3S)-, compd. with (1S,4R)-4-amino-2-cyclopentene-1-methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 136522-35-5  
 CMF C6 H11 N O  
 CDES \*

Absolute stereochemistry. Rotation (-).

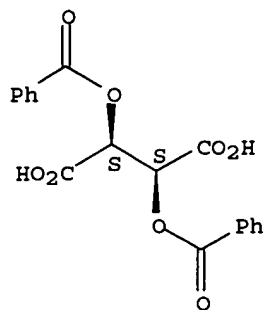


CM 2

CRN 17026-42-5  
 CMF C18 H14 O8

Absolute stereochemistry. Rotation (+).





RN 138923-02-1 USPATFULL

CN Butanedioic acid, 2,3-bis(benzoyloxy)-, [R-(R\*,R\*)]-, compd. with  
(1S-cis)-4-amino-2-cyclopentene-1-methanol (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 136522-35-5

CMF C6 H11 N O

CDES \*

Absolute stereochemistry. Rotation (-).

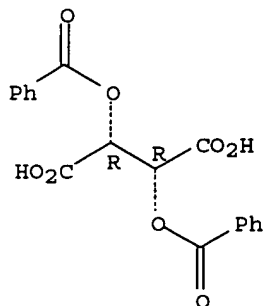


CM 2

CRN 2743-38-6

CMF C18 H14 O8

Absolute stereochemistry. Rotation (-).



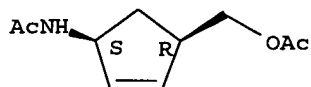
IT 61865-50-7

(reaction of, in preparation of antiviral agents)

RN 61865-50-7 USPATFULL

CN Acetamide, N-[(1R,4S)-4-[(acetyloxy)methyl]-2-cyclopenten-1-yl]-, rel-  
(9CI) (CA INDEX NAME)

Relative stereochemistry.



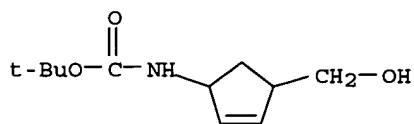
L48 ANSWER 11 OF 13 USPAT2 on STN  
 AN 2003:306989 USPAT2  
 TI Tricyclic compounds as MRP1-inhibitors  
 IN Lander, Peter Ambrose, Indianapolis, IN, United States  
 Wang, Qiuping, Hamden, CT, United States  
 Vepachedu, Sreenivasarao, Palo Alto, CA, United States  
 PA Eli Lilly and Company, Indianapolis, IN, United States (U.S. corporation)  
 PI US---6673809 B2 20040106  
 WO2001096346 20011220  
 AI 2003US-0296481 20030416 (10)  
 2001WO-US16475 20010601  
 PRAI 2000US-211430P 20000614 (60)  
 DT Utility  
 FS GRANTED  
 EXNAM Primary Examiner: Aulakh, Charanjit S.  
 LREP Tucker, Tina M., McGraw, Elizabeth, Lee, Kirby W.  
 CLMN Number of Claims: 9  
 ECL Exemplary Claims: 1  
 DRWN 0 Drawing Figure(s); 0 Drawing Page(s)  
 LN.CNT 1717

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a compounds of formula I, wherein A is olefin, diol, or acetonide; which are useful for inhibiting resistant neoplasms where the resistance is conferred in part or in total by MRP1.  
 ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 216481-83-3P  
 (preparation of 5H-isoxazolo[4,3-c]quinolin-4-ones as MRP1 inhibitors)  
 RN 216481-83-3 USPAT2  
 CN Carbamic acid, [4-(hydroxymethyl)-2-cyclopenten-1-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L48 ANSWER 12 OF 13 USPAT2 on STN  
 AN 2003:146829 USPAT2  
 TI Methods and compounds for inhibiting MRP1  
 IN Bonjouklian, Rosanne, Zionsville, IN, United States  
 Cohen, Jeffrey Daniel, Indianapolis, IN, United States  
 Gruber, Joseph Michael, Brownsburg, IN, United States  
 Johnson, Douglas Webb, Zionsville, IN, United States  
 Jungheim, Louis Nickolaus, Indianapolis, IN, United States  
 Kroin, Julian Stanley, Indianapolis, IN, United States  
 Lander, Peter Ambrose, Indianapolis, IN, United States  
 Lin, Ho-Shen, Indianapolis, IN, United States  
 Lohman, Mark Christopher, Boulder, CO, United States  
 Muehl, Brian Stephen, Greenwood, IN, United States  
 Norman, Bryan Hurst, Indianapolis, IN, United States  
 Patel, Vinod Francis, Acton, MA, United States

Richett, Michael Enrico, Indianapolis, IN, United States  
 Thrasher, Kenneth Jeff, Indianapolis, IN, United States  
 Vepachedu, Sreenivasarao, Palo Alto, CA, United States  
 White, Wesley Todd, Indianapolis, IN, United States  
 Xie, Yongping, Naperville, IL, United States  
 York, Jeremy Schulenburg, Indianapolis, IN, United States  
 Parkhurst, Brandon Lee, Indianapolis, IN, United States  
 Wang, Qiupang, Hamden, CT, United States  
 PA Eli Lilly and Company, Indianapolis, IN, United States (U.S.  
 corporation)  
 PI US---6743794 B2 20040601  
 WO2001046199 20020628  
 AI 2002US-0130800 20020521 (10)  
 2000WO-US32443 20001211  
 PRAI 1999US-171373P 19991222 (60)  
 2000US-226076P 20000817 (60)  
 2000US-234539P 20000922 (60)  
 DT Utility  
 FS GRANTED  
 EXNAM Primary Examiner: Huang, Evelyn Mei  
 LREP Tucker, Tina M., McGraw, Elizabeth  
 CLMN Number of Claims: 39  
 ECL Exemplary Claim: 1  
 DRWN 0 Drawing Figure(s); 0 Drawing Page(s)  
 LN.CNT 11329  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention further relates to a method of inhibiting MRP1 in  
 a mammal which comprises administering to a mammal in need thereof an  
 effective amount of a compound of formula (I). ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

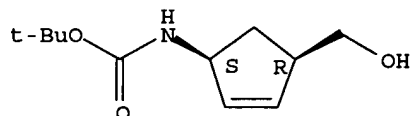
IT 153011-43-9P

(preparation of N-isoxazoloquinolinylcyclohexylcarboxamides and analogs as  
 MRP1 inhibitors)

RN 153011-43-9 USPAT2

CN Carbamic acid, [(1S,4R)-4-(hydroxymethyl)-2-cyclopenten-1-yl]-,  
 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



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(FILE 'HOME' ENTERED AT 10:11:59 ON 21 JUN 2006)

FILE 'HCAPLUS' ENTERED AT 10:12:08 ON 21 JUN 2006

L1 1 (US2004142436 OR US6723868)/PN OR (US2003-695930 OR CH1998-1188  
 E BRIEDEN W/AU  
 L2 36 E4  
 E SCHROER J/AU  
 L3 21 E3-5, E11-14  
 E BERNEGGER/AU  
 L4 9 E6, E8  
 E URBAN E/AU  
 L5 24 E3  
 E URBAN EVA/AU  
 L6 7 E3-4  
 E PETERSEN M/AU

L7 158 E3-21  
E PETERSEN MI/AU  
L8 118 E4-20  
E RODUIT J/AU  
L9 38 E4-5  
E BERCHTOLD K/AU  
L10 10 E3-4,E8  
E BREITBACH H/AU  
L11 7 E3-4,E8

FILE 'REGISTRY' ENTERED AT 10:16:51 ON 21 JUN 2006

FILE 'HCAPLUS' ENTERED AT 10:16:57 ON 21 JUN 2006  
L12 TRA L1 1- RN : 22 TERMS

FILE 'REGISTRY' ENTERED AT 10:16:57 ON 21 JUN 2006  
L13 22 SEA L12  
L14 17 L13 AND C5/ES  
L15 STR  
L16 1 L15 CSS  
L17 62 L15 CSS FULL  
SAV TEM L17 MEL930F0/A  
L18 9 L14 AND C6H11NO

FILE 'HCAPLUS' ENTERED AT 10:25:02 ON 21 JUN 2006  
L19 88 L17  
L20 9 CYCLOPENTENE (1A)AMINO (1A)METHANOL OR AMINO (1A)CYCLOPENTENEME  
L21 7 L19-20 AND L1-11  
L22 64 L19-20 (L) PREP+NT/RL  
L23 5 L22 AND L21  
L24 7 L21,L23

FILE 'REGISTRY' ENTERED AT 10:28:26 ON 21 JUN 2006  
L25 5 L13 NOT L14  
E TARTARIC ACID/CN  
L26 1 E3  
L27 484 C4H6O6 AND TARTAR?  
L28 407 L27 NOT PMS/CI  
L29 297 L28 NOT (COMPD OR COMPOUND OR UNSPECIFIED)  
L30 287 L29 NOT ESTER  
L31 4 C4H6O6 AND L17

FILE 'HCAPLUS' ENTERED AT 10:31:42 ON 21 JUN 2006  
L32 1 L31  
L33 28022 L30  
L34 33695 ?TARTARIC? (1A)ACID OR DIHYDROXYETHANE (2A)DICARBOX? (1A)ACID O  
L35 26 DIHYDROXYSUCCINIC (1A)ACID  
L36 13 "E334" OR E 334 OR THEARIC ACID  
L37 1 L31 AND L1-11  
L38 7 L24,L37  
E TARTARIC/CT  
E E4+ALL  
L39 26604 E11+NT  
L40 0 L38 AND L33-36,L39  
L41 1 L22 AND L33-36,L39  
L42 59 L22 NOT L38  
L43 44 L42 AND (PY<=1998 OR AY<=1998 OR PRY<=1998)  
L44 1 L43 AND L19-20 (L)PUR/RL  
L45 2 L41,L44

FILE 'HCAOLD' ENTERED AT 10:45:13 ON 21 JUN 2006  
L46 0 L17

FILE 'USPATFULL, USPAT2' ENTERED AT 10:45:57 ON 21 JUN 2006  
L47 68 L17  
L48 13 L47 AND L33-36

E TARTARIC ACID/CT

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